

JEZO I.

CZECHOSLOVAKIA/Organic Chemistry - Naturally Occurring  
Substances and Their Synthetic Analogs.

G.

ABs Jour : Ref Zhur - Khimiya, No 9, 1958, 28934.  
Author : Dubrovkova, L., Jezo, I., Sefcovic, P., Voticky, Z.  
Inst : -  
Title : Some Esters of 1-N-Methylephedrine.  
Orig Pub : Chem Zvesti, 11, No 5, 281-284 (1957) (in Slovak with  
summaries in German and Russian)  
  
Abstract : A number of esters of 1-N-methylephedrine (I) with ali-  
phatic aromatic acids are described. The esters were  
prepared from I by a previously described method  
(RZhKhim, 1957, 71547). I is synthesized by the follo-  
wing series of reactions: 3.3 gms of L-ephedrine, 580  
gms of formalin (40 gms CH<sub>2</sub>O per 100 ml.), and 390 gms  
of 85% HCOOH are refluxed for 5 hrs, and the product of  
the reaction is decomposed with 195 gms NaOH in 470 ml  
water; the yield of I is 286 gms, mp 85-86°,

Card 1/3

SECRET

CZECHOSLOVAKIA/Organic Chemistry - Synthetic Organic Chemistry. G-2

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 14415.

Author : Dubravkova L., Jezo I., Sefcovic P., Voticky Z.

Inst :

Title : Some Esters of Basic Isopropanols.

Orig Pub: Chem. zvesti, 1957, 11, No 6, 351-357.

Abstract: Syntheses of  $RCH_2CH(CH_3)OCOAr$  (I), wherein R is the residue of an amine, by boiling for 3 hours 0.1 mole  $R'COCl$  in 100 ml  $C_6H_6$  and 0.2 mole  $RCH_2CH(CH_3)OH$  in 150 ml  $C_6H_6$  (the latter were prepared, with yields of 75-96%, from  $CH_3CHCH_2O$  and RH in autoclave, 5 hours, 170-190°). Listing the Ar, yield of I in %, BP in °C, MP of picrate and methyl iodide in °C: with R =  $(CH_3)_2N$ :  $C_6H_5$ , 87-89/1 mm, 181-182, 184-186; o- $CH_3OC_6H_4$  (Ar<sup>1</sup>), 125-126/1 mm, 165-166, 196-197; p- $CH_3OC_6H_4$  (Ar<sup>2</sup>), 115-117/0.5 mm, 200-201, 169-170; 3,4-( $CH_3O_2$ )<sub>2</sub> $C_6H_3$  (Ar<sup>3</sup>), 159-160/1.5 mm, 203-204, 200-202; 3,4,5-( $CH_3O$ )<sub>3</sub> $C_6H_2$  (Ar<sup>4</sup>), 148-149/0.5 mm, 194-195,

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CZECHOSLOVAKIA/Organic Chemistry - Synthetic Organic Chemistry.

G-2

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 14415.

205-206; with R =  $(C_6H_5)_2N$ :  $C_6H_5$ , 113-115/0.2 mm, 102-103, 149-150;  $Ar^1$ , 133-134/0.15 mm, 98-99, 118-119;  $Ar^2$ , 142-144/0.15 mm, 126-127,  $Ar^3$ , 161-163/0.2 mm, 158-159, 182-183;  $Ar^4$ , 163-165/0.2 mm, 159-160, 185-186; with R = N-piperidyl:  $C_6H_5$ , 109-110/0.1 mm, 139-140, 128-129;  $Ar^1$ , 156-157/0.2 mm, 147-148, 133-134;  $Ar^2$ , 164-166/0.2 mm, 169-170, 191-192;  $Ar^3$ , 172-174/0.2 mm, 224-225, 195-196;  $Ar^4$ , 176-178/0.2 mm, 179-180, 199-200; with R = N-morpholyl:  $C_6H_5$ , 123-124/0.1 mm, 202-203, 140-141;  $Ar^1$ , 160-161/0.15 mm, 171-172, 150-151;  $Ar^2$ , 178-180/0.15 mm, 185-186, 193-195;  $Ar^3$ , 191-193/0.25 mm, 227-228, 195-196;  $Ar^4$ , 203-205/0.2 mm, 209-210, 208-209.

Card : 2/2

CZECHOSLOVAKIA / Organic Chemistry. Synthesis.

G-2

Abs Jour: Ref Zhur-Khimiya, No 7, 1959, 23412

Author : Dubrakova, L.; Jezo, I.; Sefcovic, P.; Voticky, Z.

Inst : Not given

Title : Abnormal Course of Reaction of Bischler-Napieralsky.

Orig Pub: Chem zvesti, 1957, 11, No 9, 536-541.

Abstract: In the study of the method of synthesis of the isoquinoline analogue of podophyllotoxin, 1-(3,4,5-trimethoxyphenyl)-3-carbethoxy-6,7-methylenedioxy-3,4-dihydroisoquinoline (I) was obtained, and it was found on that occasion that no cyclohydration of the ethyl ester of  $\alpha$ -(3,4,5-trimethoxy-benzamido)- $\beta$ -(3,4-methylenedioxyphenyl)-propionic acid (II) is caused by the action of  $P_2O_5$ ; 4-piperonylidene-2-(3,4,5-trimethoxyphenyl)-oxazolone (III) is obtained with  $PCl_5$ , and I is only partially produced

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CZECHOSLOVAKIA / Organic Chemistry. Synthesis.

G-2

Abs Jour: Ref Zhur-Khimiya, No 7, 1959, 23412

Abstract: with  $\text{POCl}_3$ , but 5-ethoxy-4-piperonyl-2,3,4,5-trimethoxyphenyl-oxazole (IV) is formed as the main product. Solution of 200 g of III in 300 g of 10% NaOH with water added to bring up the total volume to 1.6 liter is boiled for 6 hours, cooled, and, after the acidification of the solution,  $\alpha$ -3,4,5-trimethoxybenzamido- $\beta$ -(3,4-methylene-dioxyphenyl)-acrylic acid (V) precipitates, yield 91%, melt. p. 228-229° (from alc.). 1.5 kg of 4% Na amalgam is added to the solution of 133 g of V in 1.5 liter of water with 30 g of NaOH maintaining the basic reaction, the mixture is filtered and acidified, and  $\alpha$ -3,4,5-trimethoxybenzamido- $\beta$ -93,4-methylenedioxyphenyl)-propionic acid (VI) precipitates; yield 85%, melt. p. 193-194° (from alc.). 45 g of VI, 500 ml of abs. alcohol and 10

Card 2/4

CZECHOSLOVAKIA / Organic Chemistry. Synthesis.

G-2

Abs Jour: Ref Zhur-Khimiya, No 7, 1959, 23412

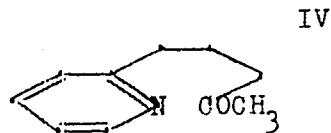
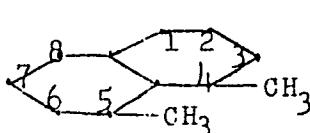
Abstract: the solution of 6 g of II in 150 ml of  $\text{CHCl}_3$  (temperature below  $40^\circ$ ) and allowed to stand at  $20^\circ$  for 5 days,  $\text{POCl}_3$  and  $\text{CHCl}_3$  are distilled off in vacuo, the residue is treated with water, and III is obtained, yield 72%, melt. p.  $198\text{--}200^\circ$  (from  $\text{CH}_3\text{COOH}$ ). -- P. Sokov

Card 4/4

CZECHOSLOVAKIA / Organic Chemistry. Natural Substances and G  
Their Synthetic Analogues.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61103.

Abstract:



60%, boiling point 142 to 146°/0.25 mm. The alkaline product of III saponification and decarboxylation (6 hours of boiling with concentrated HCl) is extracted with ether and 1-[6'-methylpyridyl-(2')]-pentanone-4 (IV) is obtained, yield 90%, boiling point 92 to 94°/10 mm; semiplatinate - dissociation point 185 to 186°. I is prepared

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CZECHOSLOVAKIA / Organic Chemistry. Natural Substances G  
and Their Synthetic Analogues.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61103.

Abstract: by the hydrogenation of 0.06 mole of IV in 120 ml of absolute alcohol (4 g of Raney's catalyst, 150 atm, 200 to 220°) with the evaporation of the acidified filtrate until dry and extraction of the alkaline residue with ether, yield 61%, boiling point 53 to 55°/8 mm; semichloroplatinate - dissociation point 185 to 186°, picrate - melting point 156 to 158°. See report X in RZhKhim, 1958, 28943.

Card 3/3

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CZECHOSLOVAKIA / Organic Chemistry: Natural Substances G  
and Their Synthetic Analogues.

Abs Jour: Ref Zhur-Khimia, No 18, 1958, 61104.

Abstract: tracted with ether, and 2-(3'-oxy-1'-methoxymethyl-propyl)-pyrrolidine (V) is obtained, yield 78%, boiling point 153 to 157°/9 mm,  $n^{22}D = 1.4816$ . If water-cooled V is poured into glacial  $\text{CH}_3\text{COOH}$  saturated with HBr gas, the OH group will be substituted with Br with a simultaneous breaking of the ester bond and formation of 2-(3'-bromo-1'-oxymethylpropyl)-pyrrolidine; at the heating of the later (having distilled off  $\text{CH}_3\text{COOH}$ ) with 10 g of NaOH in 50 ml of water (100°, 2 hours), HBr splits off with the formation of I; the yield of I from the  $\text{CHCl}_3$  extract is 90%, boiling point 141 to 144°/9 mm,  $n^{22}D = 1.4975$ ; picrate - melting point 190 to 191° (from alcohol); a little amount of picrate, melting point 173 to 174°, was separa-

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CZECHOSLOVAKIA / Organic Chemistry. Natural Compounds G-3  
and Their Synthetic Analogs.

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 77820.

Author : Dubravkova, L., Jezo, I., Sefcovic, P., and  
Voticky, Z.

Inst : ~~Not given.~~ SLOVENSKA AKADEMIE VIED, PRAGA, CZECHOSLOVAKIA.  
Title : Esters of N,N-Disubstituted Aminoethanol.

Orig Pub: Chem Zvesti, 12, No 4, 252-255 (1958) (in Slovak  
with summaries in German and Russian).

Abstract: In the course of the investigation of compounds  
containing the N-C-C-OH group, some of which have  
a hypotensive action, the authors have synthesized  
compounds having the general formula  $ROOOCCH_2CH_2$   
 $N(CH_3)(CH_2)_5N(CH_3)_2$ , where R = 3,4,5-trimethoxy-  
phenyl (I), and  $\beta$ -pyridyl (II). Compounds of

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CZECHOSLOVAKIA / Organic Chemistry. Natural Compounds G-3  
and Their Synthetic Analogs.

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 77820.

Abstract: ing water bath and then for 8 hrs at 120°; the mixture is diluted with 200 ml water, made weakly alkaline with 50% KOH, and the product is salted out with solid K<sub>2</sub> CO<sub>3</sub> and extracted with CHCl<sub>3</sub>; HOCH<sub>2</sub> CH<sub>2</sub> N(CH<sub>3</sub>) (CH<sub>2</sub>)<sub>4</sub> CN is obtained, yield 51%, bp 159-161°/11mm, 60 gms of the latter substance are dissolved in 440 ml abs alc saturated at 0° with NH<sub>3</sub> gas and the solution is hydrogenated over Raney Ni at 150° and at an initial pressure of 130 atm, giving HOCH<sub>2</sub> CH<sub>2</sub> N(CH<sub>3</sub>) (CH<sub>2</sub>)<sub>5</sub> NH<sub>2</sub> (IV), yield 86%, bp 139-140°/11mm,  $n^{22}_D$  1.4735. 35 gms IV are added with cooling to 165.8 gms of 90% HCOH followed by the addition of 61 gms of 35% HCHO. The mixture is heated for 10 hrs [temp?], 55 ml

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JEZO - 1

COUNTRY : Czechoslovakia 0-2  
 CATEGORY :  
 ABS. JOUR. : AZKhim., No. 20 1959, No. 71489  
 AUTHOR : Jezo, I.; Tihlarik, K.  
 INSTIT. : Not given  
 TITLE : High Temperature Reaction of Allyl Alcohol with Ammonia  
 ORIG. PUB. : Chem. Zvesti, 1958, 12, #9, 558-569.  
 ABSTRACT : The effect of temperature, catalyst, ratio and the feed rate of reactants on the yield of pyridine bases resulting from the reaction of allyl alcohol (I) with NH<sub>3</sub> was studied. At optimum conditions, that is when reaction was conducted in a copper tube over Pd/Al<sub>2</sub>O<sub>3</sub> at 310°, using a 1:3 ratio of I:NH<sub>3</sub> and a feed rate of 20.5 g/hr of (I) (30 grams of catalyst), 36.19% of pyridine bases were obtained. The latter consisted of 59.7%  $\delta$ -picoline, 15.8% 3,5-dimethylpyridine, 7.32% 3,5-dimethyl-4-ethyl-pyridine and 17.1% of tars (nondistillable substances). The yield of distillates was decreased to 7.9%, when the same catalyst was used for 30 hours.  
 CARD: 1/1

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— D. Vitkovskiy

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620011-5"

Country : Czechoslovakia  
 Category : Organic Chemistry. Heterocyclic Compounds and Their Synthetic Analogs.  
 Abs. Jour. : Ref. Khim.-Khimika, No.12, 1959, No. 42535  
 Author : Dubravská, I., Ježo, I., Šefčovič, P., \*  
 Institut. : Not given  
 Title : The Synthesis of Some Alkaloid Derivatives.  
 XIV  
 Orig. Pub. : Chem. zvesti, 1958, 12, No. 8, 459-463

Abstract : A synthesis of a lycoctonine (1-oxymethyl-6,7-dimethoxy-1,2,3,4-tetrahydroisoquinoline is described. The acylation of homoveratrine arine (I) by benzyl oxyacetic acid (II) in decalin (with the elimination of the formed water by way of an azeotropic mixture with the solvent) gave N-benzyl oxyacetyl derivative of I with a 91% yield, m.p. 68-69° (from water);

\* Voticky, Z.

Card: 1/5

Country : Czechoslovakia  
Category : Organic Chemistry, Natural Compounds and  
Their Synthetic Analogs.  
Abs. Jour. : Ref. Zhur.-Khimiya, No.12, 1959, No.44505

G

Author :  
Institut. :  
Title :

Orig. Pub. :

Abstract : 32-33° (from petroleum ether). The hydrochloride, m.p. 208-209° (from alcohol-ether); the chloroplatinate, m.p. 191-193° (decomposition; from water). Quantitative hydrolysis by boiling dilute HCl 1:1 yielded (+)-calyptotamine, m.p. 135-136°; other derivatives made were: hydrochloride, m.p. 192° (from methanol-ether solution); the perchlorate, m.p. 174° (from water); the picrate, m.p. 162-163° (from alcohol); the chloroplatinate,

3 Card:  
4 Lines:

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JEZO, I.; [REDACTED]

TECHNOLOGY

Periodical CHEMICKE ZVESTI. Vol. 12, no. 9, Sept. 1958.

JEZO, I.; TIHLARIK, K. Reaction of allyl alcohol with ammonia under higher temperatures.  
p. 558.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 3, March, 1959. Uncl.

File 2

Distr: 4E2c(j)/4E3d

The reaction of allyl alcohol with ammonia at higher temperatures. J. Jelík and K. Thlářík (Chem. listy, Slovenská akad. vied., Bratislava, Czech.), Chem. Listy 52, 558-60 (1958) (German summary).—The reaction of allyl alc. (I) with gaseous NH<sub>3</sub> (II) at higher temps. by applying a catalyst of an oxide-carrier, salt, and metal-carrier type was studied. The relation of yield of pyridine bases on incoming speed of I, the mol. ratio of I and II, reaction temp., the type and aging of catalyst was detd. At 310° with the incoming speed of I 20.5 g. per hr. on 50 g. Pd-Al<sub>2</sub>O<sub>3</sub> catalyst in an iron tube, 36.10% basic portion (III) was produced. III was composed of 59.70%  $\beta$ -picoline, 16.80% 3,5-dimethylpyridine, 7.32% 3,5-dimethyl-4-ethylpyridine and 17.10% undstd. residue. The best results were obtained in a copper tube with the incoming speed of I 50.6 g. per hr. on 30 g. Pd-Al<sub>2</sub>O<sub>3</sub> catalyst with a 1:3 molar ratio of I to II.

Jan Michal

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JE 20, 1.

Reaction of diacetone alcohol with ammonia at higher temperatures. I. Šebek and K. Thilářek (Slovenská akad. vied, chem. inštav, Bratislava, Čech). *Chem. svet* 13, 68-102 (1969) (German summary).—By reaction of diacetone alc. with NH<sub>3</sub> gas at 810° with Pd-C catalyst were prep'd. 16.4% 2,4,6-trimethylpyridine, 7b, 187-70°, n<sub>D</sub><sup>20</sup> 1.4910 [picrate m. 182° (EtOH); 0.5H<sub>2</sub>PtCl<sub>6</sub> salt m. 221-2° (decompn.) (EtOH); HAuCl<sub>4</sub> salt m. 111-12° (EtOH); H<sub>2</sub>Cr<sub>2</sub>HgCl salt m. 180° (EtOH); picrolonate m. 227° (decompn.) (EtOAc)], and 3% 3-iso-Pr deriv, b.p. 83-3°, m. 14-40° (Et<sub>2</sub>O)[picrate m. 194° (decompn.) (EtOH); 0.5H<sub>2</sub>PtCl<sub>6</sub>·H<sub>2</sub>O salt m. 210-18° (decompn.) (50% EtOH); 0.5H<sub>2</sub>PtCl<sub>6</sub> salt m. 231° (decompn.) (EtOH); picrolonate m. 253-4° (decompn.) (EtOH)].

Jan Micks

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2/14/97  
1/23/97

JK JJ

COUNTRY : CZECHOSLOVAKIA  
SUBJCTRY : Organic Chemistry. Natural Substances and  
Their Synthetic Analogs  
ABSTRACT JOUR. : RZZKhim., No. 1 1960, No. 1362  
AUTHOR : Babor, K.; Jozo, I.; Kalac, V.; Karvac, M.  
TITLE : Synthesis of Some Alkaloid Derivatives. XVI.  
PERIOD. PUBL. : Chem. svesti, 1959, 13, No 3, 163-169  
ABSTRACT : The synthesis of 1-methylpyrrollysidine derivatives was carried out, during which the stage of ring closure was effected under conditions approximating physiological ones. The realization of the synthesis appeared to verify Schöpf's hypothesis (Schöpf, C., Angew. Chemie, 1949, 61, 32) regarding the biogenesis of alkaloids from substances of the general formula  $\text{CHO}(\text{CH}_2)_x\text{NH}-(\text{CH}_2)_x\text{CHO}$ ; the correctness of this hypothesis  
CARD: 1/6  
G-45

COUNTRY	:	G
CATEGORY	:	
ABS. JOUR.	:	RZKhim., No. 1 1960, No. 1362
AUTHOR	:	
ART.	:	
FILE	:	
TYPE, PUB.	:	
ABSTRACT	:	pH>5, II does not cyclize, and at pH<1 the polymerization products of II are formed. The initial $\text{Cl}(\text{CH}_2)_3\text{CHO}$ , b.p. 52-54°/12 mm, was synthesized by oxidation of $\text{Cl}(\text{CH}_2)_4\text{OH}$ with $\text{CrO}_3$ in $\text{CH}_3\text{COOH}$ . The mixture of 0.05 mole of Ia, 0.5 mole of Ib, 0.05 mole of KI and 0.1 mole of potash in 150 ml of abs. alcohol is boiled for 20 hours, diluted with water, and
CARD:	2/6	C-466

*Jezo, Ivan*

IVAN Jezo

Age: 39

Male

Married

Children:

Bratislava, Partizanske, No 7, Tel 60, 7 513

*(Signature)*  
IVAN Jezo: Bachelor, Ph D; Candidate of Chemical Sciences  
Affiliation: Department of Chemistry of Natural Substances at  
the Chemical Institute of the Slovak Academy of  
Sciences in Bratislava.

Data: Co-author of "On the Reaction of 1-chloro-6,7-dimethoxy-

isoquinoline with Hydrazine Hydroxide," Source.

*(Signature)*  
IVAN Jezo: Engineer  
Affiliation: Department of Chemistry of Natural Substances at the  
Chemical Institute of the Slovak Academy of  
Sciences in Bratislava.

Data: Co-author of "On the Reaction of 1-chloro-6,7-dimethoxy-

isoquinoline with Hydrazine Hydroxide," Source.

*(Signature)*  
IVAN Jezo: Engineer; Candidate of Chemical Sciences  
Affiliation: Department of Chemistry of Natural Substances at  
the Chemical Institute of the Slovak Academy of  
Sciences in Bratislava.

Data: Co-author of "On the Reaction of 1-chloro-6,7-dimethoxy-

isoquinoline with Hydrazine Hydroxide," Source.

*Beck*

BABOR, Karol, inz., C.Sc.; JEZO, Ivan, dr., inz., C.Sc.; KALAC, Vladimir, inz.,  
C.Sc.; KARVAS, Milan, inz.; TIHLARIK, Karel, inz.

Synthesis of certain alkaloid derivates. Part 20. Chem zvesti 15 no.10:  
721-724 0 '61.

1. Oddelenie chemie prirodnych latak Chemickeho ustavu Slovenskej  
akademie vied, Bratislava. Aughots' address: Bratislava, Mlynske nivy  
37, Chemicky ustav Slovenskej akademie vied.

JEZO, Ivan, dr., inz., C.Sc.; LUZAK, Ivan, inz.

Aminolysis of saccharose. Pt.2. Chem zvesti 17 no.4:255-264 '63.

1. Ceskoslovenska akademie ved, Chemicky ustav Slovenskej akademie vied, Oddelenie chemie sacharidov, Bratislava, Mlynske nivy 37.

JEZO, Ivan, dr., inz., C.Sc.

Aminolysis of saccharose. Part 1. Chem zvesti 17 no,2:  
126-139 '63.

1. Chemicky ustav Slovenskej akademie vied, Oddelenie chemie  
sacharidov, Bratislava, Mlynske nivy 37.

BILIK, Vojtech, promovany chemik; JEZO, Ivan, dr. inz., CSc.

Some trimethylsilyl derivatives of saccharides. Chem zvesti  
17 no.12:861-864 '63.

1. Ceskoslovenska akademie ved, Chemicky ustav Slovenskej  
akademie vied, Bratislava, Mlynske nivy 37.

JEZO, Ivan, dr. inz., CSc.; LUZAK, Ivan, inz.

Aminolysis of saccharose. Pt. 3. Chem zvesti 17 no.12:  
865-883 '63.

1. Ceskoslovenska akademie ved, Chemicky ustav Slovenskej  
akademie vied, Bratislava, Mlynske nivy 37.

L 1631-66

ACCESSION NR: AP5024266

CZ/0043/64/000/009/0638/0611

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20

B

AUTHOR: Bilik, V. (Graduate chemist); Ježo, I. (Ježho, I.) (Doctor, Engineer, Candidate of sciences) (Bratislava); Stankovic, L. (Stankovich, I.) (Graduate chemist) (Bratislava)

44

44

TITLE: Determination of silicon in O-(Trimethylsilyl)-derivatives of saccharides

SOURCE: Chemicke zvesti, no. 9, 1964, 688-691

TOPIC TAGS: silicon, analytic chemistry, hydrolysis, organic silicon compound, carbohydrate

Abstract [Authors' German summary, modified]: Described is a method of determining silicon in some derivatives of O-(trimethylsilyl)saccharides, O-(trimethylsilyl)polysaccharides, N-(trimethylsilyl)-amines, and trimethylsilyl esters of organic acids. The method is based on a hydrolytic decomposition of substances. Hydrolysis products (trimethylsilanol and hexamethylsiloxane) are brought by an oxygen flow to a combustion tube where they are quantitatively burned to silicon dioxide.

Card 1/2

L 1631-66

ACCESSION NR: AP5024266

"We thank A. Sedlak <sup>44</sup> for the determination of some physico-chemical constants of studied compounds." Orig. art.has: 1 figure, 1 table. <sup>7</sup>

ASSOCIATION: Chemicky ustav Slovenskej akademie vied, Oddelenie chemie monosacharidov, Bratislava (Department of the Monosaccharides Chemistry, Slovak Academy of Sciences)

SUBMITTED: 28Sep63

ENCL: 00

SUB CODE: 00, GC

NR REF Sov: 001

OTHER: 006

JPN3

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Card 2/2

L 1606-66

ACCESSION NR: AP5024490

353 CZ/0043/64/000/011/0837/0851  
178AUTHOR: Jezo, I. (Yezho, Y.) (Doctor, Engineer, Candidate of sciences) (Bratislava);  
Luzak, I. (Luzak, Y.) (Engineer) (Bratislava)TITLE: Aminolysis of sucrose (V). Reaction of sucrose with aqueous solution of ethanoleamineSOURCE: Chemicke zvesti, no. 11, 1964, 837-851

TOPIC TAGS: carbohydrate, aqueous solution, ethanol, amine, reaction mechanism

ABSTRACT: Aminolysis of sucrose by water solutions of ethanolamine was conducted at elevated temperatures. In the reaction mixture the following were identified and isolated: ethylene-diamine, 1-ethyl piperazine, 1-(2-hydroxyethyl)-2-methyl-1,4,5,6-tetrahydropyrazine, 2-methyl-4-(2-hydroxyethyl)-1,4,5,6-tetrahydropyrazine, 1-(2-hydroxyethyl)-2-methyl-2-imidazoline, 1,4-bis(2-hydroxyethyl)-2-methyl-1,4-dihydropyrazine, and a substance with an empirical formula  $C_{11}H_{21}N_3O_2$ . The formation of these

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L 1606-66

ACCESSION NR: AP5024490

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substances is explained by a suggested reaction mechanism that applies at elevated temperatures. "We thank A. Puffler and O. Rau for the elementary analyses; R. Justh for the measurement of infrared spectra; A. Sedlak for determination of some physico-chemical constants of the examined materials. Z. Matrka participated in the experimental work." Orig. art. has: 5 formulas, 4 graphs, 3 tables.

ASSOCIATION: Chemicky ustav Slovenskej akademie vied, Oddeleky chemie monosacharidov, Bratislava (Department of Chemistry of Monosaccharides, Institute of Chemistry, Slovak Academy of Sciences) 63

SUBMITTED: 15Jun64

ENCL: 00

SUB CODE: OC, GO

NR REF Sov: 000

OTHER: 013

JPRS

Card 2/2

JEZO, I.

Professor Eng. Mikulas Furdik at sixty. Chem listy 59 no.5:  
638-639 My '65.

BILIK, Vojtech, prcm. chemik; BAUER, Stefan, dr. inz., C.Sc.; FELO, Ivan, dr. inz., C.Sc.; FURDIK, Mikulas, prof. inz.

Separation of O-trimethyl derivatives of monosaccharides by gas-liquid chromatography. Chem zvesti 19 no.1:28-33 '65.

1. Chair of Organic Chemistry and Biochemistry of the Faculty of Natural Sciences of Komensky University, Bratislava, Smeralova
2. Editorial Board Member, "Chemicke zvesti" (for Furdik).

L 7711-66	EPA(j)/EWP(j)/EWA(b) 2	RM	SOURCE CODE: CZ/0043/65/000/001/0026/0033
ACC NR: AP6000910	44,55		
AUTHOR: <u>Bilik, Vojtech</u> (Graduate chemist); <u>Bauer, Stefan</u> (Bauer, Sh. (Engineer); Candidate of sciences); <u>Jezo, Ivan</u> (Yežo, I. (Doctor; Engineer; Candidate of sciences); <u>Furdik, Mikulas</u> (Engineer; Professor) 44,55			
ORG: Department of Biochemistry of Saccharides, Chemical Institute, Slovak Academy of Sciences, Bratislava (Chemicky ustav Slovenskej akademie vied, Odelenie monosacharidov); Department of Organic Chemistry and Biochemistry, Faculty of Natural Sciences, Comenius University, Bratislava (Katedra organickej chemie a biochemie Prirodovedeckej fakulty Univerzity Komenskeho) 44,55			
TITLE: Separation of O-trimethyl-silyl derivatives and O-methyl derivatives of mono-saccharides by gas-liquid chromatography 44,55			
SOURCE: <u>Chemicke vesti</u> , no. 1, 1965, 28-33			
TOPIC TAGS: carbohydrate, biochemistry, gas chromatography, chemical separation, organosilicon compound			
ABSTRACT: The authors describe separation of O-trimethyl silyl derivatives from O-methyl derivatives of monosaccharides by means of gas chromatography. The anchored phase used was a polyester of 1,4-butane diol succinate. They found that elution periods of methyl analogues of trimethyl silyl ethers were a function of the anchored phase and its carrier (silica). Eng. A. Kardosova and P. Sushansky collaborated in the work in the division of gas chromatography. Orig. art. Russ: 4 graphs, 1 table. Card 1/2 44,55 PRS			
44,55		44,55	44,55

7711-56

ACC NR: AP6000910

SUB CODE: 06, 07 / SUBM DATE: 20Jul64 / OTH REF: 008

Card 2/2

L 31396-66

ACC NR: AP6021114

SOURCE CODE: CZ/C043/65/000/012/0000/0907

38  
BAUTHOR: Jozo, Ivan--Yezho, I. (Docent; Doctor; Engineer; Candidate of sciences;  
Bratislava); Luzak, Ivan--Luzhak, I. (Engineer; Bratislava)ORG: Department for the Chemistry of Mono and Oligo-saccharides, Chemical Institute,  
SAV, Bratislava (Oddelenie chemie monosaccharidov a oligosaccharidov Chemickeho ustavu  
Slovenskej akademie vied)TITLE: Aminolysis of sucroso (VI). Reaction of sucrose with water solutions of  
beta-aminopropionitrile at elevated temperaturos

SOURCE: Chemicke zvesti, no. 12, 1965, 900-907

TOPIC TAGS: chemical roaction, amino, organic nitrile compound, carbohydrate

ABSTRACT: During the reaction of sucrose with beta-aminopropio-  
nitrile in water solution at elevated temperatures a mixture of  
heterocyclic compounds is formed; the authors isolated and  
identified the following: 2-methylpyrazine, 2,5-dimethylpyrazine,  
2-methyl-1,4(?)-dihydropyrazine, 4(5)-methylimidazole, and 2-  
methyl-4-(beta-cyanoethyl)-1,4-dihydropyrazine. At the same time  
the beta-aminopropionitrile is transformed to bis(2-cyanoethyl)  
amine. The reaction mechanisms explaining the formation of the  
compounds mentioned is discussed. The authors thank A. Pufflorov and O.

Card 1/2

L 31396-66

ACC NR: AP6021114

Jurikov for the elementary analysis, A. Sedlak for determining several physico-chemical constants of the examined substances. Z. Martka and P. Gregor participated in the experimental work. Orig. art. has: 2 tables. [JPRS]

SUB CODE: 07 / SUBM DATE: 22Feb65 / ORIG REF: 002 / OTH REF: 001

SOV REF: 001

Card 2/2 CC

L 31333-66

SOURCE CODE: CZ/0043/65/000/012/0908/0917

ACC NR: AP6021115

AUTHOR: Jozo, Ivan--Yezho, I. (Docent; Doctor; Engineer; Candidate of sciences; Bratislava); Luzak, Ivan--Luzhak, I. (Engineer; Bratislava)

ORG: Department for the Chemistry of Mono and Oligo-saccharides, Chemical Institute, SAV, Bratislava (Oddelenie chemie monosacharidov a oligosacharidov Chemickeho ustavu Slovenskoj akademie vied)

TITLE: Aminoanalysis of sucrose (VII). Reaction of sucrose with water solutions of dimethylamine at elevated temperatures

SOURCE: Chemicke zvesti, no. 12, 1965, 908-917

TOPIC TAGS: carbohydrate, chemical reaction, reaction temperature, dimethylamine, dicarboxylic acid, organic amide, propane, ethane, ethanol

ABSTRACT: The following substances were isolated by the authors from the reaction mixture of sucrose and dimethylamine at elevated temperatures: trimethylamine, dimethylaminomethane; 2-dimethylaminoethanol, 1,2-bis(dimethylamino) propane, 1,1,2-tris(dimethylamino)ethane; N-dimethylacetamide, N-dimethylglycol amide, N,N'-tetramethylglycinamide, and the bismethylamide of the cis(?)-tetrahydrofuran-2,5-dicarboxylic acid. The mechanism of the reaction is discussed. The authors thank A. Pufflerov and O. Jurikov for the elementary analysis, R. Justhov for remeasuring the infrared spectrum and A. Sedlak for determining several physico-chemical constants of the examined substances. P. Gregor participated in the experimental part. Orig. art. has:

2 tables. [JPRS] SUB CODE: 07 / SUBM DATE: 22Feb65 / ORIG REF: 005 / OTH REF: 023

SOV REF: 002  
Card 1/1

JEZO, M., mgr inz.

Transistorized converter systems as used in aviation.  
Techn lotn 19 no. 1: 12-16 Ja '64.

NOWAK, Stanislaw; JEZOWA, Liliana

Intestinal flora in the treatment of tuberculosis in children. Gruzlica  
29 no.11:947-948 N '61.

1. Z I Kliniki Chorob Dziecięcych AM w Poznaniu Kierownik: prof. dr  
med. T. Rafinski.

(INTESTINES microbiol)  
(ANTITUBERCULAR AGENTS ther)

TABLEAU, Jerzy; WOJCIKIEWICZ, Olga; SANOCKA, Irena; JEZOWA, Maria; JASTRZEBSKI, Jerzy

The clinical significance of certain excitability and conduction disturbances in the light of the statistical analysis of 30,000 electrocardiograms. Pol. arch. med. wewn. 33 no.1:39-46 '63.

1. Z I Kliniki Chorob Wewnetrznych AM w Krakowie Kierownik: prof. dr med. L. Tochowicz.  
(ELECTROCARDIOGRAPHY) (STATISTICS) (HEART BLOCK)

JEZOWA, M.

The significance of the positive U-wave. Kardiol. Pol. 8 no.1:  
53-56 '65

1. Z. I Kliniki Chorob Wewnętrznych Akademii Medycznej w Krakowie  
(Kierownik: prof. dr. L. Tochowicz).

TROSKOLANSKI, Adam Tadeusz, prof. inz.; JEZOWIECKA-KABSCH, Krystyna,  
mgr inz.

Calculation of fluid ejectors based on power equations. Gaz  
woda techn sanit 37 no.8:251-254 Ag '63.

1. Department of Mechanics of Liquids and Gases, Technical  
University, Wroclaw.

YEZHOVSKA TSHEBYATOVSKA, B. [Jezowska-Trzebiatowska, B.]; VOYTSEKHOVSKI, V.  
[WOJCIECHOWSKI, W.]

Magnetic properties of binuclear complexes with an oxygen bridge  
in the light of the methods of valence schemes and molecular orbits.  
Zhur.strukt.khim. 4 no.6:872-880 N-D '63. (MIRA 17:4)

1. Vrotslavskiy universitet, Pol'sha.

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JEZOWSKA-TRZEBIATOWSKA, B.

BC

Complex chlorides of quadrivalent rhenium.  
B. Jezowska-Trzebiatowska and C. Jozko (Roczn. Chem., 1959, 79, 187-196).—HReO<sub>4</sub> in 30% HCl and  
M<sub>2</sub> (24 hr. at 20° in a CO<sub>2</sub> atm.) yield M<sub>4</sub>Re<sub>2</sub>OCl<sub>10</sub>  
(M = K, NH<sub>4</sub>, quinoline), together with M<sub>2</sub>ReCl<sub>4</sub>OH  
(M = K, NH<sub>4</sub>, Rb, quinoline) and M<sub>2</sub>ReCl<sub>6</sub>.  
R. T.

ASR-1A METALLURGICAL LITERATURE CLASSIFICATION

GROUPS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				

JEZOWSKA-TRZEBIATOWSKA, BOGDANOWA

Poland

CA: 47:12073

with JADWICA NAWOJSKA and MARIA WRONSKA

Univ., Wroclaw

"Quinquevalent manganese."

Roczniki Chem. 25, 405-16 (1951) (English summary)

JEZOWSKA-TRZEBIATOWSKA, B.

*Complexes*

JEZOWSKA-TRZEBIATOWSKA, Boguslawa: Complex Compounds of 4- and 5-rhenium,  
Wroclaw: ~~WROCŁAWSKI PUNKTY WIEDZ~~ Wroclawskie Towarzystwo  
Naukowe, 1953. 29 pp.

JEZOWSKA-TRZEBIAŁOWSKA, B.

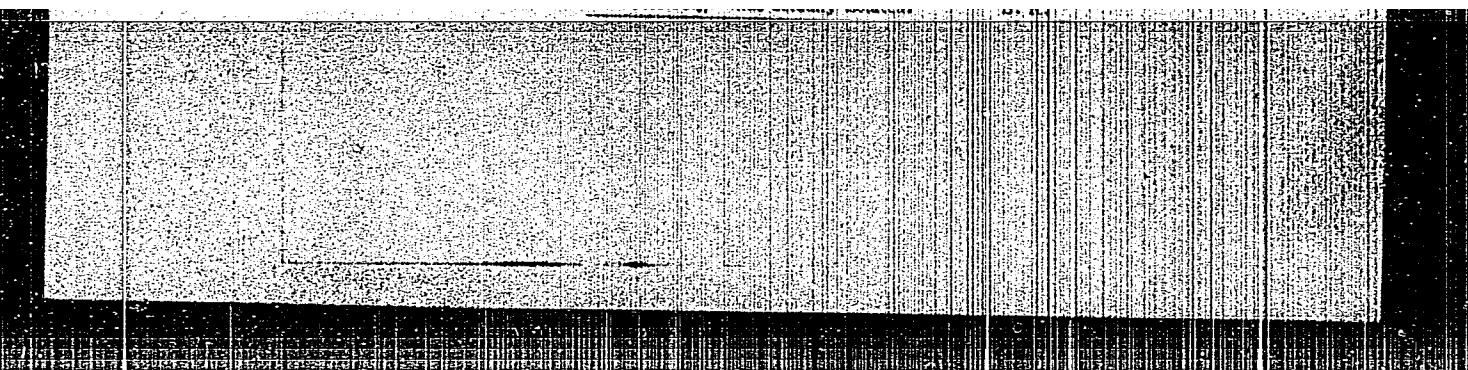
The mechanism of reduction of potassium permanganate by concentrated potassium hydroxide solution. B. Jezowska-  
Trzebialowska, J. Nawalka, and M. Kramiec. *Acta  
Phys. Polon. (Warszawa)*, *Bull. Acad. polon. sci. Classe III  
Phys. Chem.* 10, 311-15 (1953). In the absence of reducing agents in al-  
soins of  $\text{KMnO}_4$ , the  $\text{OH}^-$  ion acts as an electron donor and  
the mechanism of the reduction is as follows: (I) (a)  
 $\text{MnO}_4^- + \text{OH}^- \rightarrow \text{MnO}_4^{3-} + \text{OH}^-$  (b)  $\text{MnO}_4^- + \text{OH}^- \rightarrow$   
 $\text{MnO}_4^{3-} + \text{H}^+ + \text{O}_2$  (II) (a)  $\text{MnO}_4^{3-} + \text{OH}^- \rightarrow \text{MnO}_4^{2-}$   
 $+ \text{OH}^-$  (b)  $\text{MnO}_4^{3-} + \text{OH}^- \rightarrow \text{MnO}_4^{2-} + \text{H}^+ + \text{O}_2$   
(III) (a)  $\text{MnO}_4^{2-} + \text{OH}^- \rightarrow \text{MnO}_4^{1-} + \text{OH}^-$  (b)  $\text{MnO}_4^{2-}$   
 $+ \text{OH}^- \rightarrow \text{MnO}_4^{1-} + \text{H}^+ + \text{O}_2$  In about 1M  $\text{KOH}$ ,  
 $2\text{MnO}_4^{3-} + 2\text{H}_2\text{O} \rightarrow \text{MnO}_4^{2-} + \text{MnO}_4^{1-} + 4\text{OH}^-$  In  
dil.  $\text{KOH}$  ( $< 0.001\text{M}$ )  $3\text{MnO}_4^{3-} + \text{H}_2\text{O} \rightarrow 2\text{MnO}_4^{1-} +$   
 $\text{MnO}_4^{2-} + 2\text{OH}^-$  The rate-detg. step is III. Evidence for  
each step is given. [Bernard Rubin]

(2)

The behavior and constitution of active tantalum (V) complexes. II. Tantalum(IV) hydroxochlorofenate and its reduction to tantalum(III). Clegg (Inst. Technol., Univ. of Calif., Los Angeles, Calif.).—The reduction of  $K_2ReO_4$  in concentrated HCl with III leads to the formation of 2 new complexes,  $K_4[ReOHCl_4]$  and  $K_4[ReCl_5(OH)_2]$ , which remain in mutual equil. Absorption spectra of pure  $K_4[ReOHCl_4]$  show it to be a primary reduced product. It changes into the binuclear complex  $[Re_2O_2Cl_6]^{4-}$  and below 18°, the equil. favors this complex. Molar conductivities of both salts confirm them as 3 and 4 electrolytes. Magnetic measurements by the Gouy method indicate that the hydroxochlorofenate(IV) is a normal paramagnet in  $(M^{4+} = 8120 \times 10^{-4} \text{ g}^{1/2} \text{ cm}^3 \text{ oer}^{-1} \text{ mol}^{-1} = 6040 \times 10^{-4} \text{ M}^{1/2} \text{ cm}^3 \text{ oer}^{-1} \text{ mol}^{-1})$ .

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620011-5



APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620011-5"

JEZOWSKA-TRZEBIATOWSKA, B.

*Kinetics of permanganate reduction by hydroxyl ions.*  
B. Jezowska-Trzebiatowska, J. Nawojcik, and M. Wróblewski.  
*Bull. Acad. Polon. Sci. Classe III, 2, 447 (1974).*

The successive reductions  $Mn(VII) \rightarrow Mn(VI) \rightarrow Mn(V) \rightarrow Mn(IV)$  were studied kinetically to establish the mechanism of each step. Excess  $OH^-$  concn. was used to give soins. of const. ionic strength and to enable the reaction to be handled as pseudounimol. Reaction progress was detd. iodometrically. The order of each of the consecutive reactions was detd. by the half-life method. The mechanism of the  $Mn(VII) \rightarrow Mn(VI)$  step is given by:  $MnO_4^- + OH^- \rightarrow MnO_4^{*} + OH^-$ ;  $MnO_4^{*} + OH^- + OH^- \rightarrow MnO_4^{**} + H_2O + O_2$ ;  $O_2 + OH^- \rightleftharpoons HO_2^-$ ;  $MnO_4^{**} + HO_2^- + OH^- \rightleftharpoons MnO_4^{*} + O_2^- + H_2O$ ;  $MnO_4^{*} + O_2^- \rightarrow MnO_4^{*} + O_2$ . The reduction  $Mn(VI) \rightarrow Mn(V)$  follows the same general pattern. The mechanism of the reduction  $Mn(V) \rightarrow Mn(IV)$  is given by:  $MnO_4^{*} + OH^- \rightarrow MnO_4^{*} + OH^-$ ;  $MnO_4^{*} + OH^- + H_2O \rightleftharpoons MnO_4^{*} + 4OH^-$ . Cf. *C.A.* 88, 9705c. (Howard Nechamkin)

~~TRZEBIAŁOWSKA~~ →  
JEZOWSKA-TRZEBIAŁOWSKA B

**Peroxy complexes as intermediate states in the electron transfer reaction.** B. Jezowska-Trzebiatowska and H. Przywara. *Bull. Acad. Polon. Sci. Cl. Sci. Phys. Chem.* 11, 3, 429-32 (1963) (in English); cf. *C.A.* 48, 13518b, 47, 9812f. The oxidizing action of  $H_2O_2$  on  $K_4[Re_2OCl_9]$  was studied by optical d. measurements on the blood-red solns. formed. Plots of optical d. vs. the mol. ratio of  $K_4[Re_2OCl_9]$  to  $H_2O_2$  showed peaks at a ratio of 1/3 at 470, 500, 630, and 570 m $\mu$ . Solns. contg. const. amts. of  $H_2O_2$  and varying amts. of  $K_4[Re_2OCl_9]$  showed max. optical d. at a ratio of 1/3; thus only a single complex (I) exists in soln. Increase in the ratio caused a gradual decrease in optical d., suggesting that I reacts with excess  $K_4[Re_2OCl_9]$  and undergoes decompr. At const.  $H_2O_2$  and increasing  $K_4[Re_2OCl_9]$  concns. the optical d. because const. at a ratio of 1/3; further addn. of  $H_2O_2$  caused no further change and corresponded to complete binding of  $[Re_2OCl_9]^{4-}$  (Ia). The stability const. of I is  $1.02 \times 10^{10}$ . Salts corresponding to the following compns. were pptd. from solns. of max. extinction: (quinolinium-II) $4[Cl_2Re_2O_7ReCl_6]$  (II), and  $C_5H_5N[Cl_2Re_2O_7ReCl_6]$  (III). The quinidinium state of Re was established by oxidation of II and III with excess Fe(ulm), followed by  $MnO_4^-$  titration. In both cases approx. 2 equivs. of  $MnO_4^-$  were required/g.

卷之三

WZEBISTOWSKA-JEZOWSKA, Boguslawa

CH ✓ Poliographic reduction of hydroquinonate... [and] squat  
and / Boguslawa Jezowska-Tomaszewska, [and] [unclear]  
Wroclaw (Poland). Rocznik Chem. 29, 182-91 (1955) (Eng-  
lish summary). — Two kinds of poliographic curves were ob-  
tained by reduction of  $\text{Na}_2\text{MnO}_4$  at the dropping Hg electrode  
in concd. solns. of  $\text{NaOH}$ . With greater than 18 mole/l.  
 $\text{NaOH}$ ,  $\text{Mn}^{4+}$  was reduced to  $\text{Mn}^{3+}$  at  $-0.79$  v. (P.).  
In 8 to 18 mole/l.  $\text{NaOH}$  the reduction proceeded from  
 $\text{Mn}^{4+}$  to  $\text{Mn}^{3+}$  to  $\text{Mn}^{2+}$  to  $\text{Mn}^{3+}$ . Addn. of a small  
amt. of EtOH made the 3 waves disappear, giving instead a  
new wave in the region of more neg. potentials corresponding  
to reduction of  $\text{Mn}^{4+}$  to  $\text{Mn}^{2+}$  and having a height equal to  
that of the 3 previous waves combined. The "with re-  
duction" wave did not appear in concd. solns. of  $\text{NaOH}$  and  
the low O-reduction wave was disregarded. P. [1]

(1)

JEZOWSKA - TRZEBIATOWSKA, B.

Distr: 4E3b/4E2c/4E3c 2 cys/4E3d

/ The peroxy compounds of rhenium. B. Jezowska-Trzbiatowska and H. Przywarska (Univ. Wrocław, Poland). Congr. intern. chim. pure et appl., 16<sup>th</sup>, Paris 1957, Mem. sect. chim. minéral. 843-51 (Pub. 1958); cf. C.A. 52, 147a.— Oxidn. of  $\mu$ -oxochlororhenate with iodate, bromate, or other agents yields the red peroxy anion  $(Re_2O_7Cl_4)_n^{4-}$ , stability const.  $1.02 \times 10^4$ . Salts of the anion with Cs, Rb, and quinoline were prepd. and the paramagnetism of the quinoline salt was measured. The mole ratios of oxidant to  $\mu$ -oxochlororhenate are 2:1 for all except  $H_2O_2$  which has a 3:1 ratio because of a coordination complex with  $H_2O_2$  as an intermediate; oxidn. with  $H_2O_2$  or air in the presence of a nitrate catalyst is slower than the action of other oxidants. The peroxy anion decomps. readily on standing to the  $\mu$ -oxochlororhenate, and is probably best described as a pseudoperoxide. J. Phillips

5  
1/9/2 (N3)

5

POLAND / Inorganic Chemistry. Complex Compounds.

C-1

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 703.

Author : Jezowska-Trzebiatowska, B.; Pajdowski, L.

Inst : Not given.

Title : The Polynuclear Complexes of Trivalent Vanadium.  
I. The Complexes of Trivalent Vanadium with Chor-  
acetic Acid.

Orig Pub: Roczn. chem., 1957, 31, No 3, 769-781.

**Abstract:** The  $WC1_3$ -- $C1CH_2COOH$  system was investigated by an optical method of continuous changes and the method of pH measurement. The presence of three and two nuclear complex ions were shown to exist in solution. In the solid state the complex compounds having the general formula  $[V_3(C1CH_2COO)_6(OH)_2]X$  were separated, where  $X = C1CH_2COOH, C1O_4$  and compounds  $[V_2(C1CH_2COO)_4(OH)_2]$ , similar to the known complexes of Cr, Fe and Ru. -- Author's resume.

Card 1/1

JELZUCH - TRZEBIATOWSKA

Country : Poland C  
 Category : Inorganic Chemistry - Complex Compounds

Abs. Jour : RZhKhim., No 13, 1959 45333

Author : Jegowska-Trzebiatowska, B., Bartek, A. \*  
 Institut. : Not given  
 Title : Investigation of the Chemistry of Hexavalent and Quadrivalent Uranium in Organic Solvents

Orig. Pub. : Nukleonika, 3, Spec No, 39-58 (1958)

Abstract : The authors have investigated the behavior of  $UO_2(NO_3)_2 \cdot 6H_2O$  (I) in organic solvents ( $C_2H_5OH$ , acetone, methyl ethyl ketone, methyl isobutyl ketone, acetylacetone, 1,4-dioxane, acetonitrile, formamide, butylisoamylphosphates) by the methods of spectrophotometry, solubility, and electric conductivity. It is shown that I is a very weak electrolyte in organic solvents. The absorption spectra (360-500 m $\mu$ ) of I in the above-indicated organic solvents are described; all of the spectra

Card: 1/4 \* Przywarska, E., Chmielowska, M., Mikulski, T.  
 Bukietynska, K., and Kakolowicz, W.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000619620011-5

Country : Poland C  
 Category : Inorganic Chemistry - Complex Compounds

Abs. Jour : RZhKhim., No 13, 1959 45333

Author :  
 Institut. :  
 Title :  
 Orig. Pub. :  
 Abstract : show a marked fine structure. The authors also discuss the formation of complexes involving I and molecules of organic solvents. The kinetics of the photochemical formation of  $UO_4 \cdot 2H_2O$  (II) in ether solutions of I saturated with water when a stream of  $O_2$  is passed through the solution at 25° and the latter is irradiated with light from a mercury lamp. The following mechanism is proposed for the formation of II which under the conditions indicated follows zero-order kinetics:

Card: 2/4

POLAND / Inorganic Chemistry. Complex Compounds. C

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 7757.

Author : Jezowska-Trzebiatowska B., Wajda, S.

Inst : Polish Academy of Sciences.

Title : The Diamagnetic Oxo-oxalatorhenates.

Orig Pub: Bull. Acad. polon. sci. Ser. sci. chim., geol. et geogr., 1958, 6, No 4, 217-221, XVII.

Abstract: Mixture of  $\text{ReO}_3$ ,  $\text{HgC}_2\text{O}_4$  and  $\text{K}_2\text{C}_2\text{H}_4$ , in the molecular proportions of 1 : 3 : 1, was heated for 70 hours; after addition of alcohol (to 55%) there separated a brown powder of  $\text{K}_4\text{Re}_2(\text{OH})_6(\text{C}_2\text{H}_4)_2\text{O}_7$  (I); after 24 hours following increase of alcohol concentration in the filtrate to 80% there separated olive-green crystals of  $\text{K}_4\text{Re}_2(\text{OH})_2(\text{C}_2\text{O}_4)_4\text{O}_7$  (II). From solution of II in

Card 1/2

Jezowska-Trzebiatowska, B.

POLAND/Inorganic Chemistry - Complex Compounds

C

Abs Jour: Referat Zhur - Khim, No. 9, 1959, 30757

Author : Jezowska-Trzebiatowska, B, Przywarska, H.

Inst : Polish Academy of Sciences

Title : Oxygen-Carrying Capacity of Binuclear Rhenium  
(IV) Complexes

Orig Pub: Bull Acad Polon Sci, Ser Sci Chim, Geol, et  
Geograph, 1958, No 6, 349-354

Abstract: The authors have made continuous spectrophotometric measurements on the reaction of  $\text{ReO}_2\text{Cl}_{10}^{7-}$  (I) with a number of oxidizers. It has been found that 1 mol of I adds 1 gm-atom of O. The peroxy complex  $\text{Re}_2\text{O}_2\text{Cl}_{10}^{7-}$  (II) which is formed is unstable and is completely decomposed after 12 hrs; in the course of the

Card 1/3

58

JEZOWSKA-TRZEBIATOWSKA, B.; BARTECKI, A.

The absorption spectra of uranyl nitrate in some organic solvents.  
In English. Bul Ac Pol chim 6 no.9:567-574 '58. (EPAI 9:6)

1. Department of Inorganic Chemistry, Wroclaw University.  
Institute of Physical Chemistry, Polish Academy of Sciences.  
Presented by W.Trzebiatowski.

(Uranyl nitrate) (Absorption spectra)  
(Solvents) (Organic compounds)

B. JĘZOWSKA - TRZĘBIATOWSKA

DATA: 1920

Kinetics of the reaction between oxochlororhenate(IV) and molecular oxygen catalyzed by nitrates. B. Jęzowska-Trzebiatowska and T. Przywarska (Univ. Wrocław, Poland). *Bull. Acad. polon. Sci. Ser. Mat. Chem., geo. et geogr.* 6, 611-16(1958)(in English); cf. *C.A.* 52, 19003d. — The reversible oxidation with gaseous O from air, of K oxochlororhenate (I) to the peroxy compd. was studied at 2.5, 12, and 13°. I ( $10^{-4}$  mole) was dissolved in 50 ml. 2*N* HCl; about  $10^{-3}$  mole  $KNO_3$  was added as catalyst. the soln. filled with  $H_2O$  to 100 ml., and optical ds. at 400  $\mu\mu$  were examined at time intervals. The soln. was stirred vigorously in contact with air. Data fitted the equation  $dx/dt = k[KNO_3] \cdot (a - x)^{0.5} \cdot t^{\alpha}$ . Activation energy was 10.02 cal. A 2-stage mechanism is suggested, and the derivation of the kinetic equation is outlined. J. Stecki

~~Bogusława Jęzowska-Trzebiatowska, B.~~

Distr: A E2c(1)

✓ **Polynuclear vanadium(III) complexes. II. Structure of vanadium(III) complexes with monochloroacetic acid.** Bogusława Jęzowska-Trzebiatowska and Lech Pułtowski (Univ. Wrocław, Poland). *Koznicki Chem.* 32, 1061-72 (1958) (English summary); cf. *C.A.* 52, 3588c.—Only one OH group can be replaced in soln. by an NH<sub>3</sub> mol. in the complex V<sub>3</sub>(CICH<sub>2</sub>COO)<sub>3</sub>(OH)<sub>2</sub>·4H<sub>2</sub>O (I). The mol.-wt. detns. by dialysis confirmed the trimuclear structure of I. Potentiometric titration showed that NH<sub>3</sub> but not H<sub>2</sub>O takes the place of the OH group. The magnetic moment of I is 2.80 B.M., whereas for the complex with NH<sub>3</sub> it is 2.77 B.M./atom at 293°K.; this indicates identical symmetry of V in both complexes. The configurations corresponding to Werner's and Künzli's formulas are extreme cases, whereas in soln. a kind of tautomerism occurs which depends on pH and concn. New configurational formulas are suggested. The lowering of magnetic moment of trimuclear V complexes (II) in soln. is attributed to the presence of OH bridges in tautomeric form. The explanation of Werbel, et al. (*C.A.* 38, 604) is criticized. Crystn. of II would require considerable deformation of structure; therefore, in the solid state only Werner's tautomeric form can exist.

A. Kreglewski

5  
3/1/4

POLAND/Optics - Spectroscopy.

K

Abs Jour : Ref Zhur Fizika, No 1, 1960, 2154  
Author : Jezowska-Trzebalaowska, B., Bartek, A.  
Inst : The University, Wroclaw; Institute of Physical Chemistry, Polish Academy of Sciences.  
Title : The Absorption Spectra of Uranyl Nitrate in Some Organic Solvents  
Orig Pub : Bull. Acad. polon. sci. Ser. sci. chim., geol. et geogr., 1958, 6, No 9, 567-574, IL-L  
Abstract : Absorption spectra were measured of solutions of hexahydrate uranyl nitrate in water (I), dioxane (II), acetone (III) methyl ethyl ketone (IV), methyl isobutyl ketone (V), tributyl phosphate (VI), aceton nitryl (VII), formamide (VIII) and acetyl acetone (IX) in the range from 360 to 500 millimicrons, The

Card 1/3

POLAND/Optics - Spectroscopy.

K

**APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000619620011-5"**  
Abs Jour : Ref Zhur Fizika, No 1, 1960, 2154

spectrum of solutions I -- VIII consists of a broad-band with a clearly pronounced vibrational structure and, apparently, corresponds to the forbidden transition of the electrons of the add end on the 5 f orbit of uranium. The position of the maxima of the vibrational bands and the corresponding coefficients of absorption  $\epsilon$  (mole<sup>-1</sup> cm<sup>-1</sup> liter) are tabulated. In III -- VIII the vibrational structure is less sharply pronounced than in I -- II, and a bathochromic shift occurs in the vibrational bands by approximately 10 millimicrons. The similarity between spectra I -- VII shows that in the solution, the uranyl nitrate exists in the form  $UO_2(H_2O)_4 \cdot (NO_3)_2$  or

$[(UO_2(H_2O)_4(NO_3)_2)]$ , where the nitrate groups can

be partially replaced by molecules of the solvent.

Card 2/3

JĘZOWSKA-TRZEBIAŁOWSKA, B.

✓ Reduction mechanism and electron structure of oxyevanorhenate. B. Jęzowska-Trzebiatowska and J. Damowska  
(Univ. Wrocław, Poland). *Z. physik. Chem. (Leipzig)* 214, 29-39 (1959).—By aid of the polarographic redn. of  $K_2(ReO_4(CN)_4)$ , the electron no. involved in the cathode process was calcd. from the Ilkovic equation and detd. by polarographic microcoulometry. With an excess of  $CN^-$  ions the redn. leads directly to  $Re^{+1}$  complexes. With redn. in a KCl soln.  $Re^-$  ions were obtained. The results of the electrochem. method were confirmed chemically by redn. with Na amalgam in which  $Re^+$  complexes were obtained.  
Friedrich Böttger

5  
Z. Jęz. (pl/B)

AE2c  
1-11-1 ID

COUNTRY	:	Poland	B-9
CATEGORY	:		
ABS. JCUR.	:	RZKhim., No. 21 1959, No.	74250
AUTHOR	:	Jezowska-Trzebiatowska, B. and Przywarska, H.	
INST.	:	Polish Academy of Sciences	
TITLE	:	Kinetics of the Reaction Between Oxochlororhenate (IV) and Molecular Oxygen Catalyzed by Nitrates	
ORIG. PUB.	:	Bull Acad Polon Sci, Ser Sci Chim, Geol et Geograph, 6, No 10, 611-615, LIII-LIV (1959)	
ABSTRACT	:	The kinetics of the addition of molecular O <sub>2</sub> to [Re <sub>2</sub> OCl <sub>4</sub> O] <sup>4-</sup> (I) with the formation of a red peroxide complex [Re <sub>2</sub> O <sub>2</sub> Cl <sub>4</sub> O] <sup>4-</sup> (II) in the presence of NO <sub>3</sub> <sup>-</sup> have been studied in acid medium at 2.5-13° by the colorimetric method. The reaction is reversible; when pure N <sub>2</sub> is passed through the solution obtained, II is converted back to I. The reaction rate is first order in the concentration of I and directly proportional to the concentration of NO <sub>3</sub> <sup>-</sup> . The activation	

CARD: 1/2

40

JEZOWSKA-TRZEBIATOWSKA, B.; BARTECKI, A.; CHMIELOWSKA, M.

The potassium permanganate-stannous chloride system in acetone. Bul  
Ac Pol chim 7 no.7:485-490 '59. (EEAI 10:4)

1. Department of Inorganic Chemistry, Wroclaw Technical University.  
Institute of Physical Chemistry, Polish Academy of Sciences.  
Presented by W.Trzebiatowski.

(Acetone) (Potassium permanganate) (Tin chlorides)  
(Systems (Chemistry))

JEZOWSKA-TRZEBIATOWSKA, B.; KALECINSKI, J.

X-ray induced reduction of potassium permanganate and manganate in  
alkaline solution. Bul chim PAN 8 no.2:27-31 '60.  
(EEAI 10:9/10)

1. Department of Inorganic Chemistry, University, Wroclaw. Presented  
by W. Trzebiatowski.

(X-rays) (Potassium permanganate) (Manganates)

PAJDOWSKI, Lech; JEZOWSKA-TRZEBIATOWSKA, Boguslawa

Polymeric vanadium(III) complexes. IV. Determination of the  
stability of polymeric complexes. Rocznik chemii 34 no. 3/4: 775-  
785 '60. (EEAI 10:3)

1. Katedra Chemii Nieorganicznej Uniwersytetu, Wrocław i Instytut  
Chemii Fizycznej Polskiej Akademii Nauk, Wrocław  
(Vanadium) (Potentiometer)

JEZOWSKA-TRZEBIATOWSKA, Boguslawa; PAJDOWSKI, Lech

Polynuclear vanadium(III) complexes. V. Determination of the instability and equilibrium constants in the nonbuffered system  $VCl_3$ - $ClCH_2COOH$ . Rocznik chemii 34 no.3/4: 787-797 '60. (EEAI 10:3)

1. Katedra Chemii Nieorganicznej Uniwersytetu, Wrocław i Instytut Chemii Fizycznej Polskiej Akademii Nauk, Wrocław  
(Vanadium) (Chemical equilibrium)

BARTECKI, Adam; CHMIELOWSKA, Maria; JEZOWSKA-TRZEBIATOWSKA, Boguslawa

Inorganic compounds in acetone. Pt. 1. General characteristics  
of non-aqueous solvents, properties and purification of acetone.  
Pt. 2. Durability of acetone against the effect of supermangan.  
Przem chem 39 no.4:210-218 Ap '60.

1. Katedra Chemii Nieorganicznej, Uniwersytet i Politechnika, Wroclaw  
i Instytut Chemii Fizycznej, Polska Akademia Nauk, Wroclaw.

BARTECKI, Adam; JEZOWSKA-TRZEBIATOWSKA, Boguslawa

Vibrational structure of electronic spectra of uranyl nitrate. Pt. 1.  
Force constants and U-O distances in organic solvents. Nukleonika 6  
no. 4:267-275 '61.

1. Politechnika, Wrocław, Katedra Chemii Nieroganicznej II i Instytut  
Chemii Fizycznej PAN.

JEZOWSKA-TRZEBIATOWSKA, Boguslawa; BARTECKI, Adam

The vibrational structure of electronic spectra of uranyl nitrate.  
Pt,2.: The dissociation energy of uranyl ion. Nukleonika 6 no.4:  
277-285 '61.

1. Politechnika, Wroclaw, Katedra Chemii Nierorganicznej II, Instytut  
Chemii Fizycznej Polskiej Akademii Nauk.

BARTECKI, Adam; JEZOWSKA-TRZEBIATOWSKA, Boguslawa

Vibrational structure of electronic spectra of uranyl nitrate. Pt. 3.  
Transition intensities in the spectra of uranyl nitrate. Nukleonika 6  
no. 4:287-294 '61.

1. Politechnika, Wroclaw, Katedra Chemii Nieorganicznej II. i Instytut  
Chemii Fizycznej PAN.

S/081/62/000/014/007/039  
B166/B144

AUTHORS: Jeżowska-Trzebiatowska, B., Wajda, S., Wojciechowski, W.

TITLE: Para- and diamagnetic rhenium (IV) complexes. Part III. Complex compounds of rhenium (IV) with organic hydroxy-acids. Part IV. Rhenium (IV) complexes with phenol carboxylic acids

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 14, 1962, 86, abstract 14V57 (Bull. Acad. polon. sci. Ser. sci. chim., v. 9, no. 2, 1961, 57-64; 65-69)

TEXT: III. Complexes  $K_2[Re_2O(OH)_6L_2]$  (I) and  $K_4[Re_2O(OH)_6L'_2]$  (II) were synthesized, where  $HL$  and  $H_2L'$  are citric and tartaric acid respectively. I and II are compounds of RE (4+) got by heating  $K_2ReCl_6$  in solution with an excess of the corresponding acid. From studying the electrical conductivity of solutions of I and II it is shown that these are dinuclear complexes, diamagnetic both in the solid state and in solution. The authors consider that the diamagnetism is brought about by interaction

Card 1/2

3/081/62/000/019/001/053  
B144/B180

AUTHORS: Jeżowska-Trzebiatowska, V., Bartoński, A.

TITLE: The solvent effect in absorption spectra of uranyl nitrate

PERIODICAL: Referativnyj zhurnal. Khimiya, no. 19, 1962, 13, abstract  
19360 (Bull. Acad. polon. sci. Ser. sci chim., v. 9, no. 2,  
1961, 87 - 90 [Eng.; summary in Rus.])

TEXT: The effect of organic solvents on the absorption spectra ( $\lambda$  360 - 500  
m $\mu$ ) of uranyl nitrate (I) solutions is discussed on the basis of experi-  
mental data obtained previously. In the spectra of I solutions the mean  
distance between the components of the vibrational structure of the elec-  
tron transition bands is  $\sim 710$  cm $^{-1}$ ; it is related to the frequency  $\nu_s$  of  
the symmetrical stretching vibration of the  $UO_2^{2+}$  ion. The solvents cause  
variations in the energy of the vibrational transitions, the intensities of  
the absorption bands, and in the vibrational structure of the electron  
transition bands. No direct relation was found between variations in  $\nu_s$   
and the dielectric constant or dipole moment of the solvents. It is  
suggested that the vibrational structure of the electron transition bands  
Card 1/2

JEZOWSKA-TRZEBIATOWSKA, B.; WAJDA, S.; WJCJCIECHOWSKI, W.

Para- and diamagnetic rhenium (IV) complexes. Pt. 8. Bul chim  
PAN 9 no.12:767-772 '61.

1. Department of Inorganic Chemistry, University, Wroclaw, and  
Institute of Physical Chemistry, Polish Academy of Sciences,  
Wroclaw. Presented by W. Trzebiatowski.

JEZOWSKA-TRZEBIATOWSKA, B.; KALECINSKI, J.

The radiation chemistry of oxyanions of transition elements.  
Pt. 1. Bul chim PAN 9 no.12:791-797 '61.

1. Department of Inorganic Chemistry, University, Wroclaw, and  
Institute of Physical Chemistry, Polish Academy of Sciences,  
Wroclaw. Presented by W. Trzebiatowski.

JEZOWSKA-TRZEBIATOWSKA, B.; PRZYWARSKA, H.

The acid base and structural equilibria in binuclear rhenium (IV) complexes. Bul chim PAN 9 no.11:679-684 '61.

1. Institute of Physical Chemistry, Wroclaw Branch, Polish Academy of Sciences. Presented by W. Trzebiatowski.

JEZOWSKA-TRZEBIATOWSKA, B.; WOJCIECHOWSKI, W.

Para-and diamagnetic rhenium (IV) complexes. Pt. 5. The complex of Re (IV) with ethylenediaminetetraacetic acid. Pt1-6. The racah coefficients and energy levels of some complexes of 5d<sup>5</sup> elements. Pt. 7. Energy and length of the oxygen-bridge bond in binuclear Re (IV) complexes. Bul chim PAN 9 no.11:785-704 '61.

1. Department of Inorganic Chemistry, University, Wroclaw. Presented by W. Trzebiatowski.

9/081/63/000/001/023/061  
E144/D106

AUTHORS: Jeżowska-Trzebiatowska, B., Kaleciński, J.

TITLE: Radiation chemistry of oxy-anions of transition elements.  
Part 1. Reduction of potassium permanganate in aqueous  
solutions by  $\text{Co}^{60}$   $\gamma$ -rays

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 1, 1963, 88, abstract  
18613 (Bull. Acad. polon. sci. Sér. sci. chem., v. 9,  
no. 12, 1961, 791-797 [Eng.; summary in Russ.])

TEXT: The reduction of  $\text{KMnO}_4$  was studied in neutral solutions under the  
effect of  $\text{Co}^{60}$   $\gamma$ -rays. The reduction proceeds in two successive stages:  
 $\text{Mn}^{7+} \rightarrow \text{Mn}^{4+}$  (1) and  $\text{Mn}^{4+} \rightarrow \text{Mn}^{2+}$ . C of stage (1) with  
 $[\text{MnO}_4^-] = 0.48 \cdot 10^{-4}$  M equals 2.86 and increases proportionally to  
 $[\text{MnO}_4^-]^{1/2}$  up to 5.04 with  $[\text{MnO}_4^-] = 4.35 \cdot 10^{-4}$  M. After complete  
disappearance of  $\text{Mn}^{7+}$ , reduction of  $\text{Mn}^{4+}$  is initiated resulting in a yield  
Card 1/2

Radiation chemistry of ...

S/061/63/000/001/023/061  
B144/B166

of 1.75. The high reduction yields are explained by chain reactions.  
[Abolovitch's note: Complete translation.]

✓

S/058/63/000/002/021/070  
A062/A101

AUTHORS: Jeżowska-Trzebiatowska, B., Kędzia, B.

TITLE: Molecular spectroscopy of anhydrous uranyl salts. I. Absorption spectra of anhydrous uranyl nitrate in some organic solvents

PERIODICAL: Referativnyy zhurnal, Fizika, no. 2, 1963, 28, abstract 2D162 ("Bull. Acad. polon. sci. Ser. sci. chim.", 1962, v. 10, no. 6, 275 - 281, English; summary in Russian)

TEXT: Absorption spectra of anhydrous uranyl nitrate in diethyl ether, acetone, 2-heptanon, formamide, dioxane and acetylacetone, are obtained. In the range 360 - 500 m $\mu$ , 10 absorption bands were found. Like in the spectra of hydrates of uranyl nitrate, the electronic oscillating nature of the spectra is here conserved, and more clearly so in the visible portion of the spectrum. In the ultraviolet region there is observed, depending on the solvent, a certain blurring of the absorption bands. It may be concluded that in the visible portion of the spectrum water does not in principle affect the spectral form of uranyl nitrate in organic solvents.

[Abstracter's note: Complete translation]  
Card 1/1

JEZOWSKA-TRZEBIATOWSKA, B.; BARTECKI, A.; KEDZIA, B.

Molecular spectroscopy of anhydrous uranyl salts. III. Bul chim  
PAN 10 no.8:433-438 '62.

1. Department II of Inorganic Chemistry, Technical University,  
Wroclaw. Presented by W. Trzebiatowski.

*JEZOWSKA-TRZEBIATOWSKA, B.*

JEZHOVSKA-TRZHEBYATOVSKA, Boguslava [Ježowska-Trzebiatowska, Bogusława];  
KENDZYA, Boguslav [Kędzia, Bogusław]

Anhydrous uranyl nitrate. Nukleonika 8 no.2:101-115 '63.

1. Kafedra neorganicheskoy khimii II, Vrotslavskiy politekhnicheskiy  
institut, Vrotslav.

WOJCIECHOWSKI, M.; JEZOWSKA-TRZEBIATOWSKA, B.

The electron spin resonance in binuclear chromium III complexes.  
Biul chim PAN 11 no.2:79-84 '63.

1. Institute of Physical Chemistry, Wroclaw Branch, Polish Academy of Sciences, and Department of Inorganic Chemistry, University, Wroclaw. Presented by W. Trzebiatowski.

KALECINSKI, J.; JEZOWSKA-TRZEBIATOWSKA, B.

Radiation chemistry of oxyanions of transition elements.  
Pt. 3. Bul chim PAN 11 no.9:531-537 '63.

1. Institute of Physical Chemistry, Wroclaw Branch, Polish  
Academy of Sciences. Presented by W. Trzebiatowski.

JEZOWSKA-TRZEBIATOWSKA, B.; ZIOLKOWSKI, J.; WOJCIECHOWSKI, W.

Absorption spectra of nitrosylcyanide complexes of transition metals. Bul chim PAN 11 no.10:567-573 '63.

The application of the M.O. method to investigations of nitrosylcyanide complexes. Ibid.:575-578

1. Department of Inorganic Chemistry, University, Wroclaw.  
Presented by W. Trzebiatowski.

JEZOWSKA-TRZEBIATOWSKA, B.; BUKIETYNsKA, K.

The change of Lande's interval parameter for U (IV) and  
the new spectrochemical series. Bul chim PAN 12 no. 2:  
123-126 '64

1. Department of Inorganic Chemistry, University, Wrocław.  
Presented by W. Trzebiatowski.

KEDZIA, B.; JEZOWSKA-TRZEBIATOWSKA, B.

Molecular spectroscopy of anhydrous uranyl salts. Pts. 4-5.  
Bul chim MN 12 no.4:243-254 '64.

1. Laboratory of Rare Elements, Institute of Inorganic Chemistry  
and Metallurgy of Rare Elements, Technical University, Wroclaw.  
Presented by W. Trzebiatowski.

JEZOWSKA-TRZEBIATOWSKA, B.; ZIOLKOWSKI, J.

Infrared spectra of pentacyanonitro-yl complexes of transition metals. Bul chim PAN 12 no.8:503-506 '64.

1. Department of Inorganic Chemistry of Wroclaw University.  
Submitted May 25, 1964.

DZIEGIELAWSKI, J.; KALECINSKI, J.; JEZOWSKA-TRZESIATOWSKA, B.

The effect of gamma radiation on unranyl compounds in organic solvents. Pts.1-2. Bul chim PAN 12 no.8:537-545 '64.

1. Department of Inorganic Chemistry of Wroclaw University and Institute for Physico-Chemical Structural Research of the Polish Academy of Sciences, Wroclaw. Submitted May 29, 1964.

JEZOWSKA-TRZEBIATOWSKA, B.; GROBELNY, R.; WOJCIECHOWSKI, W.

Electronic structure of u-oxochlororuthenate and its absorption  
spectra. Bul chim PAN 12 no.12:827-830 '64.

1. Department of Inorganic Chemistry of Wroclaw University.  
Submitted September 30, 1964.

JEZOWSKA-TRZEBIATOWSKA, B.; BALUKA, M.

The oxychloro-technetate. Pt.5. Bul chim PAN 13 no.1:1-4 '65.

1. Department of Rare Elements Chemistry and Institute of Inorganic Chemistry and Metallurgy of Rare Elements of Wroclaw Technical University. Submitted November 18, 1964.

L 34699-65 EPR(c)/EPR(n)-2/EWT(m) Pr-4/Pu-4

P/0046/64/009/07-10625/063: 17

ACCESSION NR: AP4045669

AUTHOR: Yezhovska-Trzebiatowska, B. (Yezhovska-Trzebiatowska, B.); Kalecinski, J. (Kalecinski, J.)TITLE: Radiation chemistry in alkaline solutionsSOURCE: Nukleonika, v. 9, no. 7-8, 1964, 625-639TOPIC TAGS: radiolysis, alkaline solution, manganese, chromium, oxyanion

ABSTRACT: The general mechanism of radiolysis of alkaline solutions was investigated for solution concentrations varying from dilute (0.07M/l) to concentrated (13.5M/l). Previous studies have dealt primarily with acidic and neutral solutions; alkaline solutions, which involve more complex experimental difficulties owing to hydrolysis reactions, have not been discussed in principle. In the present investigations, radiolysis of alkaline solutions was carried out with the use of scavengers which do not undergo hydrolysis—oxidation-reduction systems of transition metals. The results of kinetic investigations of the radiolysis of manganese ( $MnO_4^-$ ,  $MnO_4^{2-}$  and  $MnO_4^{3-}$ ) and chromium ( $CrO_4^{2-}$  and  $CrO_2^-$ ) oxyanions and iodide

Card 1/2

L 34699-65

ACCESSION NR: AP4045669

( $\text{I}^-$ ) ions were used. The radical and molecular yields were calculated on the basis of the mechanism of manganate radiation reduction in concentrated alkaline solutions and the reduction of alkaline solutions of chromate saturated with hydrogen. The values obtained for these yields were as follows:  $\text{G}_{\text{I}} = 3.79$ ;  $\text{G}_{\text{OH}} = 3.00$ ;  $\text{G}_{\text{H}_2\text{O}_2} = 0.51$ ;  $\text{G}_{\text{H}_2} = 0.12$ . Orig. art. has: 9 figures, 29 formulas, and 2 tables.

ASSOCIATION: Polish Academy of Sciences, Institute of Structural Research, Wroclaw

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Card 2/2

JEZOWSKI-TRZEBIATOWSKA, B.; ZIOLKOWSKI, J.

Electronic structure and chemical bonding in cyanonitroso-1  
complexes of transition metals. Chem zvesti 19 no.3:177-  
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1. Department of Chemistry, University of Wroclaw, Poland.

VOYTSEKHOVSKI, V. [Wojciechowski, W.]; EZHOVSKA-TSHEBYATOVSKA, B. [Jezovska-Trzebiatowska, B.]; RUDOL'F, N. [Rudolf, N.]

Structure of diamagnetic binucleate molybdenum complexes (V).  
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1. Kafedr. neorganicheskoy khimii Wrotslavskogo Universiteta,  
Wroclaw, Poland.

L 9512-66 EWT(1)/T/EWP(t)/EWP(h)/EWA(m)-2 IJP(c) TAT/PM  
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 44, 55 44, 55 44, 55 44, 55 44, 55 44, 55 44, 55 44, 55  
 AUTHOR: Jezowska-Trzebiatowska, B.; Ziolkowski, J. 91  
 ORG: Department of Inorganic Chemistry, University of Wrocław, Poland 8  
 TITLE: Electronic structure and chemical bonding in cyanonitrosyl complexes of transition metals /Paper presented at the Symposium on the Structure and Properties of Coordinated Compounds held in Bratislava from 2 to 4 September 1961/ 744  
 SOURCE: Chemicke Zvesti, no. 3, 1965, 177-185 744  
 TOPIC TAGS: electron structure, chemical bonding, intermolecular complex, transition metal oxide, ion, exchange reaction, radioisotope, IR spectroscopy, metal oxidation, chromium, manganese, iron 7  
 ABSTRACT: The electronic structure of central ions in complexes of the  $[M(CN)_5NO]^{n-}$  type and the character of metal ligand bond were interpreted using the radioisotopic exchange method and by the IR-spectroscopic investigations. Investigations of kinetics of the isotopic exchange reaction in the system:  $[M(CN)_5NO]^{n-} - ^{14}CN^-$  where  $M = Cr, Mn, Fe$  and  $Co$ , have shown that the effective valency state of central ions in the complexes investigated is  $3+$ . The stabilization of metal oxidation state in the pentacyanonitrosyl complexes of chromium, manganese and iron as compared with hexacyanide complexes is due to the increase of stability of  $M-NO$  bond, because of the additional  $\pi$ -bond (dative or covalent type). The appearance of  $\pi$ -bond  $M-NO$ , along. 21, 44, 55  
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WERWICKI, Andrzej

Poland

no title given

no affiliation given

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→JEZOWSKI, K: Development and Arrangement of  
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